Electrical power steering especially for motor vehicles

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Cited documents:

DE19748667 DE3545788

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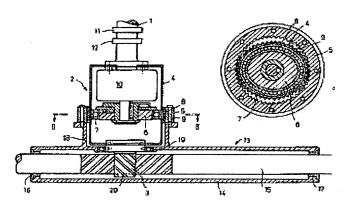
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Abstract of EP1013534

An electric power-steering gear for a motor vehicle, has an input element (1) connectable to the vehicle steering wheel, an output element (3) for moving the steerable wheels of the vehicle, and an electric motor (10) arranged coaxially with respect to the input and output elements (1, 3) and coupled to the output element (3) by means of a harmonic drive (2) to drive the output element (3) in dependence upon the torque applied to the input element (1) by the vehicle steering wheel. In the invention, the harmonic drive (2, 2') comprises a cylindrical externally toothed flexible sleeve (4, 4'), an internally toothed ring (5, 5') surrounding the flexible sleeve (4, 4'), and a generator (6, 6') for resiliently deforming the flexible sleeve (4, 4') so as to urge the teeth of the flexible sleeve (4, 4') into migrating engagement with the internal teeth of the ring (5, 5') and in that the generator (6, 6') is driven relative to the flexible sleeve (4, 4') by a motor (10, 10') mounted within the flexible sleeve (4, 4').



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